

# Psychological Study on English Learners' Autonomy Learning Under Network Environment

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**Abstract**-With the popularization and development of network technology in China, autonomy learning has become the hot issue. In the perspective of psychology, and based on summarization of autonomy learning, present situation of psychological study on autonomy learning motivation, emotions, strategies and learning modes are mainly explored by using quantitative data, and principles of psychological study on autonomy learning under the network environment are also discussed. Future direction of psychological study on Chinese English learners' autonomy learning is supplied finally.

**Keywords**-autonomy learning; network environment; internet; psychology; Chinese English learner; principles

## I. INTRODUCTION

With the development of modern information technology and advances on research of modern linguistics, the traditional learning has been changed greatly. For instance, learning materials has turned from a single textbooks to the stereo resources, such as multimedia learning software or network learning platform; learning places has extended from the fixed ones to any possible locations; learning mode has changed from the traditional classroom to multimedia learning one that based on network or internet; last but not the least, ways to acquire knowledge or resources have also developed towards diversification. Thus, it can be said that autonomy learning has become a new mode of English learning in current days, and the internet autonomy learning has become a popular learning mode. In addition, with the influencing of studies on modern psychology, many researchers have focused on the psychological study on English learners' autonomy learning. Therefore, under background of network and also in the perspective of psychology, learners' individual needs can be satisfied and their autonomy learning abilities can be cultivated, and the network environment, learners' psychological development and English autonomy learning can be combined effectively.

For these reasons mentioned above, the current studies mainly focus on three questions. Firstly, the concept of autonomy learning and its correlated concepts are summarized; secondly, the present situation of psychological study on English autonomy learning motivation, emotions, strategies and learning modes are explored; thirdly, to link network environment, autonomy learning and psychological characteristics, principles of psychological study on English autonomy learning are discussed.

## II. SUMMARIZATION OF AUTONOMY LEARNING AND ITS RELATED MAIN CONCEPTS

Before exploring the present situation of the psychological study on autonomy learning, it is crucial to identify the scope of autonomy learning and its related main concepts, such as internet autonomy learning, English autonomy learning. Autonomy learning is thought to be the learning process that learners who have some learning convince monitor and regulate themselves by setting goals and using learning strategy. zimmemaan et al have proposed that autonomy learning has four circulation model[1], that is self evaluating and monitoring, setting objectives and planning strategies, implementing and monitoring the strategies, and monitoring the outcomes, and so autonomy learners can develop their learning abilities in operating self-evaluation and improving self-efficacy, setting specific goals and choosing proper strategies, executing learning and monitoring learning progress, comparing designed criteria and regulating strategies.

Some researchers originally raised the concept of internet autonomy learning. Internet autonomy learning is a new intimate concept with autonomy learning under the network environment, which is the learning by using the network curriculum to regulate learners' meta-cognition, motivation and behaviour. Research found that internet autonomy learning in English learning has many characteristics. For example, it is based on learners' prior experience and makes the learners as the body and emphasizes the learners' autonomy learning, therefore it is beyond and expanding the learning contents in the traditional classrooms; internet teaching may keep the language subject learning technological developments, expand the knowledge, improve the learning efficiency, and make things in reality into the classroom, so it enhances learners' interests of autonomy learning; it gives more opportunities for learners to participate their learning process and keep collaboration with other learners, thus internet autonomy learning is a more effective learning method or mode.

Others have also studied deeply on the internet autonomy learning systems. Zhuang Kejun et al presented internet autonomy learning system, including four subsystems: interactive subsystem, cognitive behavioural subsystem, communicative behavioural subsystem and collaborative behavioural subsystem. Interactive subsystem is the core in this internet autonomy learning system, and autonomy learning cannot be come true without elements interaction happening.

## III. PRESENT SITUATION OF PSYCHOLOGICAL STUDY ON AUTONOMY LEARNING

Recently, researchers focus on autonomy learning in perspective of psychology mainly on autonomy learning motivation, emotions, strategies and method or modes.

#### A. Autonomy Learning Motivation

Learning motivation has been seen as one of the important factors affecting foreign language learning. Xu Shuyan et al studied Chinese English learners' autonomy learning motivation [2]. First, Based on data 304 students(127 freshmen, 141 sophomores, 36 juniors have their relative proportions being 41.78%, 43.38% and 11.84% respectively. It is included 167 students of liberal arts, 85 science students, 52 art students, 48 urban students, 53 township students, 203 rural students; 195 undergraduates, 109 junior college students; 55 boy students, 249 girl students; 43 only children, 261 non-only children; 112 students having working experience, 192 students without working experience; 15 students who have participated in autoditacte, 289 students who haven't.) from one local university in Shanxi Province, Gao yihong's English learning motivation questionnaire[3](the questionnaire was based on college students from 30 universities in 29 provinces, autonomous regions, municipalities directly under the central government, and uses five score, 1=completely disagree, 5=totally agree. It analyses data factors in 2278 valid questionnaires available, and finally fixes 30 items, 7 dimensions) was used to investigate local university students' motivation types and intense. The results showed that: college students' English learning motivation had seven types, and its intense were from the most to the least as follows: individual development; social responsibility; information medium; intrinsic interest; immediate achievement; going abroad and learning situation. The intensity of college students' English learning motivation in local university are above average ( $>2.68$ ), which were in the following descending order: personal development, social responsibility, information media, inherent interest, achievement, going abroad and learning situation. The most common five main motivation contents are related to personal development (its frequency is above 60.9%). Undergraduates' intrinsic motivation is significantly lower than that of junior college students ( $p<0.05$ ). And college students who have done part-time jobs have distinctive higher inherent interest motivation, going abroad motivation, social responsibility motivation, information media motivation than those of students who have no working experiences( $p<0.05$ ). The differences of English learning motivation in gender, grade, only child, student status, autoditacte, majors have not been found in this research ( $p>0.05$ ).

Achievement goals are the hot issue in the field of the study on learning motivation. Based on data from 221 junior school students, yang xianhua et al studied on the characteristics of classroom achievement goals, personal achievement goals and academic achievement and the relations of these three variables. The results showed that there is significant grade effect( $p<0.05$ ) and gender effect( $p<0.05$ ) on classroom mastery goals, and significant grade effect( $p<0.05$ ) and gender effect( $p<0.05$ ) on personal mastery goals; classroom mastery goals correlated positively with personal mastery goals and academic achievement, classroom performance goals correlated negatively with personal mastery goals and academic achievement, but positively with personal performance goals,

and personal mastery goals correlated positively with academic achievement.

#### B. Autonomy Learning Emotions

Yang Xianhua investigated students' autonomy learning emotions. Firstly, the reliability and validity of the Chinese version of the Learning-related Academic Emotions Questionnaire developed by Pekrun et al were revised, the confirmatory factor analysis showed that the fit indexes for CFI、TLI、IFI and GFI were all  $>0.80$ , RMSEA $<0.08$ ,  $\chi^2/df < 2.21$ . Correlations among each factors were in range of  $0.194 \sim 0.667$ . The Cronbach  $\alpha$  coefficients ranged from  $0.695 \sim 0.802$ , the test-retest reliability ranged from  $0.699 \sim 0.824$  and they were in accordance with the original English version. Secondly, using the revised questionnaire of college students' learning emotions, academic emotions for 414 four-year students in local university were explored on its current situation, characteristics and influencing factors. The results showed that the value of students' eight learning emotions from low to high were enjoyment ( $4.01 \pm 0.54$ ), hope ( $3.80 \pm 0.61$ ), pride ( $3.70 \pm 0.61$ ), anxiety ( $2.88 \pm 0.68$ ), boredom ( $2.82 \pm 0.77$ ), shame ( $2.62 \pm 0.68$ ), anger ( $2.24 \pm 0.71$ ) and hopelessness ( $1.89 \pm 0.69$ ); there were significant gender differences on anxiety ( $p<0.05$ ), enjoyment ( $p<0.01$ ) and pride ( $p<0.05$ ), and girls' scores were higher than boys. There were significant grade differences on anxiety ( $p<0.05$ ), boredom ( $p=0.000$ ), enjoyment ( $p<0.05$ ), hope ( $p=0.001$ ) and pride ( $p<0.05$ ), and the results of multiple comparison showed that negative emotions for two and three year students were higher than freshmen and positive emotions for freshmen or two year students were higher than three year students. Therefore, positive emotions were the major learning emotions for our Chinese college students, and there were some significant gender or grade differences on their learning emotions. Using the revised achievement emotions questionnaire-mathematics, characteristics of senior two students' mathematics achievement emotions were investigated [4]. The results show that the intense of senior two students' mathematics achievement emotions were orderly, from the most to the least, as follows: anxiety, pride, shame, enjoyment and anger; there was significant gender difference only in anxiety between boys and girls; there was no significant academic levels difference in all these five emotions ( $p>0.05$ ), but the results of descriptive statistics showed that high level students were higher in positive emotions and lower in negative emotions than low level ones.

Based on 92 Chinese college students and using Foreign Language Classroom Anxiety Scale, Xu Shuyan et al. studied on students' foreign language classroom anxiety, and students' anxieties between English and Japanese were compared and the domain issues were further explored. The results showed that: Chinese students' foreign language classroom anxieties were above average (the value of all four factors are  $>2.7$ ); students' anxiety of Japanese was higher than English( $p<0.05$ ); there were significant differences on anxiety intense but consistent on five anxiety contents between Japanese and English( $p<0.05$ ); therefore, there were characteristics of domain-specificity on the intense of anxiety and domain-multiplicity on the contents of anxiety. Based on 268 students in senior high school, differences of English classroom anxiety between boys and girls, only child and non-only child, rural and urban students were investigated by using English classroom anxiety scale[5].

The results showed that: there are significant differences between boys and girls on total factor score of classroom anxiety and worry, emotionality and communication anxiety ( $p < 0.01$ ), and boys' scores are higher than that of girls; however, there was no significant difference on total factor score and all the four factors of classroom anxiety between only child and non-only child, rural and urban students ( $p > 0.05$ ).

### C. Autonomy Learning Strategies

Although there are different opinions on precise definitions of English learning strategies, this does not affect exploration and cognition of this phenomenon. Except the learning strategies' definition, it has features as follows: learning strategies are general method and specific behavior of English learning; learning strategies are point to specific question; learners can be conscious their strategies; learning strategies both vocal and no vocal. Though different researchers have different opinions, there are still some similarities, so we can define English learning strategies as general thought and specific method adopted by learners to learn English, not only including direct general thought and specific method of English learning but also consisting of indirect ones. Different scholars lay their own stress on defining learning strategies; therefore, there is a diversity of theories of learning strategies. Robinson recognizes three major types of learner strategies based to reception-production model, that is Learning strategies which can be further divided into cognitive strategies and meta-cognitive strategies, communication strategies and social strategies. Cohen divides the learning strategies into two groups, one is language learning strategies and the other is language using strategies. Oxford emphasizing on the effect that learning strategies have on leaning process, groups learning strategies into two major categories: direct strategies and indirect strategies. Language learning strategies that directly involve the target language are called direct strategies, and the strategies that provide indirect support for language learning through focusing, planning, evaluating, controlling anxiety, increasing cooperation and other means are called indirect strategies and both are subdivided into three groups.

There are two main theoretical assumptions underlying contemporary ideas on language leaning strategies. One is that language learning strategy is a kind of cognitive process; the other is that leaning strategies can be learnt. Following on the observation that some learners are more successful than others, and the hypothesis that some of this success may be as a result of more effective language leaning strategies, it is further assumed that the strategies employed by the more successful learners can be leant by those who are less successful, and that teachers can assist the language learning process by promoting awareness of them and encouraging the use of them. This teach ability component of strategy theory means that contemporary educators and researchers are increasingly keen to harness the potential which language learning strategies would seem to have for enhancing an individual's ability to learn a language. Results showed that age is one of the most important factors to affect choose and use learning strategies. Learners with Different age, even learners at the same age stage, have difference in choosing and using English learning strategies under specific situations. As a result, English learners

themselves should think about age factor efficiently in autonomy learning processes. Specifically, English learners themselves should show their own learning advantages and keep correct attitudes in learning strategies, improving their cognitive abilities, memorizing abilities and learning abilities in autonomy learning process, and at a result every student can find their own English learning strategies to improve their English better.

### D. Autonomy Learning Modes

Xu Shuyan found Group-cooperative learning was a hotspot in educational psychology, and she generalized the traits of group-cooperative learning based on its definition: interplay of cooperation, variety of activity, participation of subject, guidance of teacher, and made suggestions for its practice in English teaching of middle school[6].

With the development of English teaching reforms, and emotional educations, researchers and practices found increasingly that social and emotional learning (SEL) was an effective learning method which could promote learners' English learning abilities and their class-related achievements. Wang Zhengliang and Xu Shuyan[7] found SEL emphasized importance of emotions and integrates other factors such as environment, cognition and behavior changes, so it was a new method which had characteristics of integration and uniqueness. It included three correlated elements: emotional consciousness, emotional regulation and harmonious interpersonal relationships. There were three aspects to apply the theory of SEL in English teaching: realizing the effective learning in positive experience; improving emotions in class-related activities; and enhancing interpersonal harmony in interaction.

Cultivate learners' inquiry ability is very important thing in primary and secondary English education, and it is also the direction and target of current practice of quality-oriented education and reform of classroom teaching. However, the serious problem is that the theoretical research of inquiry ability is divorced from practice of English teaching in primary and secondary school, in the process of inquiry practice, the educator' leading character, inquiry and generation process of problem, and creation of inquiry situations are neglected. In order to cultivate learners' inquiry ability, Xu Shuyan et al found two aspects should be considered[8]: on the one hand, teacher-student role should be exactly oriented respectively and changed timely; on the other hand, inquiry situations should be created, including problem solving situation, group cooperative situation, and autonomy learning situation.

Self-regulated learning is also a very important learning mode in motivation psychology, and it has four basic components: self-efficacy, goal setting, self-monitoring and strategy using. Yang Xianhua et al found Learners can cultivate their English writing skill from four aspects[9]: operating self evaluation and improving self-efficacy, setting specific goals and choosing proper strategy, executing learning and monitoring learning process, comparing formed criterion and regulating strategy.

## IV. PRINCIPLES OF PSYCHOLOGICAL STUDY ON ENGLISH AUTONOMY LEARNING UNDER NETWORK ENVIRONMENT

Although Internet has all advantages mentioned above, before turning to the Internet as a useful tool for autonomy learning, it is critical for us to clarify the role that network should play in learners' autonomy learning process, and try to avoid some pitfalls inherent in using network. In the process of using network in autonomy learning, both the subject position of the student and the guiding function of the teacher are important should be emphasized, to put it more specifically, it includes some principles as follows.

*A. The Internet Resources Should be Objectively Assessed Before Learning and Internet Should Be Used Just As The Supplement to Traditional Autonomy Learning*

"teaching aids" is central to the attitude we should have towards the role that Internet plays in autonomy learning. It shall only be used as a tool to facilitate and support learners' autonomy learning. Teachers should evaluate, select and organize resources according to different learning objectives and curriculum instead of building what is available online. The teacher also should carefully check and evaluate Internet materials. Because of the fact that anyone can post information on the Internet, online materials are not always accurate. The teacher should check the accuracy and appropriateness of online materials first, and then evaluate the fitness of such materials for learners' needs and the established learning objectives.

Learners themselves should never ignore traditional textbook learning in using Internet. Instead, learners should be aware that blended learning using a range of different tools and approaches is likely to be the most successful approach. Anyway, learning is a social process, and technology is not meant to do anything. The Internet autonomy learning has a great impact on traditional learning, for instance, learners now always use Internet to finish tasks in classroom, use Internet calculator to solve math problems, carrying mobile-phones on Internet to learn, and et al, and only using the modern technology is against to get the good habits to learn best. Therefore, autonomy learners should use the Internet as the useful supplement but not everything. Only in this way, the function of Internet can performance utmost in learners' autonomy learning practice.

*B. Learners' Needs Analysis Is Essential and Learners' Autonomy Learning Abilities Should Be Cultivated Greatly While Learners Should Bear in Mind to Improve Their Self-monitoring in Autonomy Learning*

An autonomy learner needs to take into consideration the learning needs of themselves before studying a course involving the use of Internet. Needs analysis is the core of effective autonomy learning. Teachers can help autonomy learners to have good needs analysis. A questionnaire research or interview should be done first to find out whether the learners are comfortable and confident with Internet, what they need to be able to do in the target, and what kind of learning style each of them has. Then the teacher may decide on what autonomy learning should he/she use, and what degree and in what form Internet is to be used in autonomy learning. In a word, a autonomy learner should avoid the danger of using technology for its own sake, and teachers can instruct learners to appropriate using the Internet by evaluate the learning materials.

Although the goals-setting have the function of motivation, learners are susceptible to interference by the environment. Therefore, autonomy learners should monitor their own Internet learning tasks in time. Self-monitoring is the learning

process which learners systematically and consciously observes the setting-goals, including cognitive, emotional and behavioral aspects. Studies found that high level learners have a good self-monitoring and regulation system. There are many different strategies to enhance the autonomy learners self-monitoring and self-regulation ability, including building an alternative projects and rich educational resources, enhancing the interactivity of the network, providing the mechanism for cultivating learners' motivation, reflecting and improving themselves, and adopting the emotional regulation. For example, autonomy learners can reflect and improve themselves by planning the everyday Internet autonomy learning, learning to write summary after network study, learning experience to the best network learners.

## V. CONCLUSIONS

In the perspective of psychology, this paper mainly investigated the present situation of psychological study on autonomy learning motivation, emotions, strategies and learning modes by using quantitative data, and also discussed the principles of psychological study on autonomy learning under the network environment. It is worth noting that the psychological study on English learners' autonomy learning under the network environment in this paper is overviewed only in some extents. For the future directions of psychological study on this field, researchers should increase the psychological study on the impacts of modern network or internet on English learners' autonomy learning, strengthen the studies and applications of psychological theories in the practice of English learners' autonomy learning, develop the psychological study on effectiveness of internet autonomy learning by empirical study, and emphasize the process assessment on psychological study on internet autonomy learning, et al.

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